Pandurang Mopgar

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SUMMARY

AI Engineer and Certified Generative AI Developer specializing in LLMs and prompt engineering. Proficient in Python, machine learning frameworks, and MLOps practices. Experienced in fine-tuning models and developing AI applications. Passionate about leveraging cutting-edge AI technologies to solve complex problems and drive innovation in NLP, computer vision, and multimodal AI systems.

EDUCATION

Bachelor of Computer Science, MGM College of Engineering, Kamothe

Expected 2025

- CGPA: 8.0/10
- Relevant Coursework: Data Warehouse and Mining, Cloud Computing, AI, Deep Learning

Achievements

- Published Research Paper: "Attention-Enhanced Deep Learning Model for Early Alzheimer's Disease Prediction Using MRI Scans" (99.16% Accuracy)
- Oracle Certified Generative AI Developer
- Finalist, Smart India Hackathon 2023
- Internal Winner, Smart India Hackathon 2024
- 2nd Place, Accenture Innovation Challenge 2024 (Sandbox Phase)
- Open Source Contributor: Contributed to lobechat (50k+ stars on GitHub)

PROJECTS

Intelligent Enterprise Assistant (Smart India Hackathon Winner)

- Developed an AI-driven solution that streamlines information access and improves efficiency within organizations
- Reduced time spent on information retrieval by 70%, significantly enhancing employee productivity
- Improved new employee onboarding process, cutting training time by 40%
- Awarded first prize in the college's internal Smart India Hackathon, recognizing its innovative approach and potential real-world impact

AI-Enabled Water Well Predictor (Smart India Hackathon Finalist)

- Collaborated with the Government of India to address critical water resource management challenges
- Increased successful well drilling rate by 35%, potentially improving water access for thousands of people
- \bullet Reduced costs associated with unsuccessful drilling attempts by an estimated 25%
- Provided valuable data-driven insights for long-term water sustainability planning

AI-Powered Personalized Newsletter with Multi-Agent System

- Developed a one-of-a-kind AI newsletter platform allowing users to modify their preferences and add custom interests, leveraging a multi-agent system with Google's Gemini API for intelligent content curation and personalized delivery
- Built the entire application using Next.js, integrated Shadon for sleek UI design, implemented Redis for efficient caching, and utilized Supabase for secure storage of user preferences and custom interests
- Created a high-impact, developer-focused newsletter delivering curated AI insights, breaking news, and analysis of new technologies' impact on software development, supporting continuous learning in the rapidly evolving field of AI

Breakthrough in AI Reasoning: Enhanced Chain of Thought

- Achieved a significant milestone in fine-tuning language models for advanced reasoning
- Successfully solved complex problems that challenge even advanced models like Claude 3.5 Sonnet and GPT-4
- Implemented ChatGPT-01-style Chain of Thought (CoT) reasoning on Qwen 2.5 7B and Llama 3.2 3B Instruct models

OmniHealth: AI-Powered Multi-Disease Prediction and Personalized Healthcare Platform

- Built a unified AI system for predicting diabetes, heart disease, lung cancer, pneumonia, brain tumors, and Alzheimer's disease, achieving 92%+ diagnostic accuracy overall, with the Alzheimer's prediction model achieving 99.14% accuracy keep the first as this
- Integrated AI-powered assistants like Nutrition Analyzer, Diet Planner, Exercise Coach, Symptom Analyzer, and Mental Health Assistant.
- Developed the OmniHealth Nutritional Analyzer, an AI-powered system for real-time nutrition analysis, meal planning, and progress tracking. Integrated multi-channel reporting (Gmail, SMS, WhatsApp), empowering users to achieve personalized dietary goals.
- Completed the first version of a React Native mobile app for the OmniHealth platform, utilizing Generative AI to automatically generate personalized push notifications based on users' nutrition progress and goals.

SKILLS

Programming Languages Python, Java, JavaScript, SQL

AI/ML Frameworks TensorFlow, PyTorch, Scikit-learn, Transformers

Cloud & MLOps AWS, Docker, Kubernetes

Frontend HTML, CSS, JavaScript, React, Streamlit, Next.js

Backend Flask, FastAPI, Node.js

Generative AI LLMs, Fine-tuning, PEFT, LoRA, RLHF, LangChain, Prompt Engineering

CERTIFICATIONS

- Oracle Certified Generative AI Developer
- Machine Learning Specialization (DeepLearning.AI and Stanford University, Coursera, 2024)
- Deep Learning Specialization (DeepLearning.AI, Coursera, 2024)
- Machine Learning in Production (DeepLearning.AI, Coursera, Sep 2024)
- Mathematics for Machine Learning and Data Science Specialization (DeepLearning.AI, Coursera, 2024)
- Building 12+ Generative AI Applications (Udemy, 2024)
- Power BI Data Analyst (Microsoft, Coursera, In Progress)
- Career Essentials in Generative AI (Microsoft, LinkedIn Learning, 2024)
- Introduction to Large Language Models (DeepLearning.AI and Amazon AWS, Coursera, 2024)
- Azure Machine Learning (Microsoft Learn, 2024)